ABSTRACT OF THE DISCLOSURE

A method for generating compressed correlation key values for use in correlating alarms generated by network elements in a telecommunications network is disclosed. An alarm message generated by a network element is received. A context value in the alarm message is identified. A table that associates context values to correlation key value formulas is maintained. A formula specifying how to generate the correlation key value is retrieved from the table. The correlation key value is created based on the formula. A unique ordinal number is generated to represent the correlation key value, which acts as a context key. The ordinal number and the context key pair are stored in external persistent storage for later retrieval in case of restart. The alarm message and correlation key value are sent to an external system for use in correlating alarms. The alarm message may be an SNMP message and the context value may be an SNMP context string. The table may be stored at a gateway in the telecommunication network between the network element and an OSS system. Each formula may specify, for an associated context value, one or more ordinal positions of fields in the alarm message, a concatenation of which yields the correlation key value. A formula also may reference objects or programmatic procedures in an external database system. Use of an internal correlation key and external correlation key in this manner greatly reduces the overhead involved in adding correlation keys to the original message; for example, a 32-bit numeric value can serve as a correlation key for a 100-character alarm message.

50325-0624 (4934)